

WE CLAIM AS OUR INVENTION

1 1) Method of reserving parking spaces within a
2 parking area for vehicles through an electronic
3 communication network in response to reservation requests
4 from requesting parties, comprising the steps of:
5 providing a parking area server which is accessible
6 for two-way communication with the requesting parties
7 through the electronic communication network;
8 storing parking space data in a space attribute
9 database, identifying each parking space in the parking
10 area by a unique space ID, defining one or more parking
11 space attributes for each parking space, and in data
12 communication with the server for providing parking space
13 data to the server;
14 monitoring the parking area through parking space
15 monitors positioned in the parking area proximate the
16 parking spaces, for detecting the presence or absence of
17 vehicles in the parking spaces defining a current
18 empty/occupied status for each parking space, and
19 accessible for server communication for providing the
20 empty/occupied status to the server;
21 maintaining time-based parking space availability
22 data in an availability status database in response to
23 reservations from the server and to empty/occupied status
24 from the monitors, defining an availability attribute
25 schedule for each parking space in the parking area, and
26 in data communication with the server for providing
27 availability data to the server;
28 receiving a reservation request communication from a
29 requesting party to the server via the electronic
30 communication network, requesting a reservation for a
31 parking space in the parking area specifying one or more
32 requested attributes;
33 determining the availability of parking spaces
34 having the requested attributes from the availability

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35 data in the availability status database and from the
 36 parking space data in the space attribute database;
 37 rejecting the reservation request from the
 38 requesting party if no parking space having the requested
 39 attributes is available;
 40 accepting the reservation request from the
 41 requesting party if a parking space having the requested
 42 attributes is available; and
 43 reserving the parking space having the requested
 44 attributes for the requesting party using the unique
 45 space ID.

1 2) The method of Claim 1, wherein one of the
 2 requested attributes is starting time of the requested
 3 reservation.

1 3) The method of Claim 1, wherein two of the
 2 requested attributes are starting time and terminating
 3 time of the requested reservation defining a reserved
 4 time slot.

1 4) The method of Claim 3, further comprising after
 2 the reserving step, the additional steps of:
 3 clocking the reserved time slot; and
 4 alerting the requesting party when the time slot is
 5 approaching expiration or has expired.

1 5) The method of Claim 1, wherein the requested
 2 attributes include specified conditions within the
 3 parking area of the reserved parking space.

1 6) The method of Claim 1, wherein one of the
 2 requested attributes is location within the parking area
 3 of the reserved parking space.

1 7) The method of Claim 1, wherein one of the
2 requested attributes is loading and unloading capability
3 of the reserved parking space.

1 8) The method of Claim 1, wherein one of the
2 requested attributes is dimensions of the reserved
3 parking space.

1 9) The method of Claim 1, wherein one of the
2 requested attributes specifies a plurality of the parking
3 spaces.

1 10) The method of Claim 1, wherein one of the
2 parking space attributes is a charge rate attribute.

1 11) The method of Claim 10, further comprising after
2 the determining step and before the reserving step, the
3 additional step of presenting to the requesting party the
4 charge rate attribute for the space having the requested
5 attributes.

1 12) The method of Claim 11, further comprising after
2 the accepting step, the additional step of electronically
3 collecting a fee based on the charge rate for the
4 accepted parking space.

1 13) The method of Claim 1, further comprising after
2 the reserving step, the additional step of notifying the
3 requesting party of the reserved parking space.

1 14) The method of Claim 1, further comprising after
2 the reserving step, the additional step of updating the
3 availability status database as to the now unavailability
4 of the just reserved parking space.

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1 15) The method of Claim 1, wherein the accessible
2 server communication is continuous one-way communication
3 from the monitors to the server.

1 16) The method of Claim 1, wherein the accessible
2 server communication is continuous two-way communication
3 between the monitor to the server.

1 17) The method of Claim 1, further comprising after
2 the receiving step and before the reserving step, the
3 additional step of sending an image of the floor plan of
4 the parking area to the requesting party indicating the
5 available parking spaces.

1 18) The method of Claim 1, further comprising after
2 the rejecting step, the additional steps of:
3 selecting an alternate available parking space; and
4 submitting the alternate available parking space to
5 the requesting party.

1 19) The method of Claim 18, wherein the alternate
2 parking space is a substitute space having substitute
3 attributes based on the requested attributes.

1 20) The method of Claim 18, further comprising the
2 additional step of maintaining a requesting party
3 historical database in data communication with the server
4 for certain requesting parties identified by a unique
5 party ID defining one or more historically requested
6 attributes.

1 21) The method of Claim 20, wherein the alternate
2 parking space is a historical space having attributes
3 based on historically requested attributes.

1 22) The method of Claim 20, further comprising after
 2 the reserving step, the additional step of updating the
 3 historical database with the attributes requested by the
 4 requesting party.

1 23) The method of Claim 18, further comprising after
 2 the alternate submitting step and before the determining
 3 step, the additional step of receiving an alternate
 4 reservation request during the reservation request
 5 communication specifying alternate attributes.